WHAT IS CLAIMED IS:

1. A method for accelerating the setting of a hydraulic inorganic binder composition to which has been added an additive comprising hydrophilic functional groups, characterized in that a sufficient amount of calcium silicate hydrates or of silica with a high specific surface is added to said composition.

2. A method for accelerating the setting of a hydraulic inorganic binder composition to which has been added an additive comprising hydrophilic functional groups comprising the following stages:

1) a sufficient amount of calcium silicate hydrates or of silica of high specific surface is added to the additive comprising hydrophilic functional groups in an aqueous solution with stirring;
2) the hydraulic inorganic binder composition is added to the suspension obtained in stage 1.

3. The method as claimed in claim 2, characterized in that it comprises an additional stage of drying the suspension obtained in stage 1 until a powder is obtained.

4. The method as claimed in claim 3, characterized in that the drying is carried out by an atomization process.

5. The method as claimed in any one of claims 1 to 5, characterized in that the calcium silicate hydrates are compounds of following formula (I):

$$aCaO \cdot SiO_2 \cdot bAl_2O_3 \cdot cH_2O \cdot dX \qquad (I)$$

in which:
X represents an alkali metal chosen from Li, Na, K, Rb, Cs or their mixture;

with

$0 \leq a \leq 2$

$0 \leq b \leq 1$

$1 \leq c \leq 5$

$0 \leq d \leq 1$

6. The method as claimed in claim 5, characterized in that the calcium silicate hydrates are compounds of formula (I) in which:

$0 \leq a \leq 0.66$

$0 \leq b \leq 1$

$1 \leq c \leq 5$

$0 \leq d \leq 0.4$

7. The method as claimed in claim 5 or 6, characterized in that the calcium silicate hydrates are compounds of formula (I) in which a, b and d are zero, that is to say silica.

8. The method as claimed in claim 7, characterized in that the silica is a precipitated silica.

9. The method as claimed in claim 8, characterized in that the silica is a silica having a high specific surface.

10. The method as claimed in claim 9, characterized in that the specific surface is at least 200 m^2/g.

11. The method as claimed in claim 10, characterized in that the specific surface is at least 300 m^2/g.

12. The method as claimed in any one of claims 1 to 11, characterized in that the amount of calcium silicate hydrates or of silica of high specific surface introduced into the hydraulic inorganic binder composition to which has been added an additive comprising anionic hydrophilic functional groups is between 0.5 and 200% by weight of dry calcium silicate

hydrates or silica of high specific surface with respect to the weight of the dry additive comprising anionic hydrophilic functional groups.

13. The method as claimed in claim 12, characterized in that the amount of calcium silicate hydrates or of silica of high specific surface introduced into the hydraulic inorganic binder composition to which has been added an additive comprising anionic hydrophilic functional groups is between 10 and 100% by weight of dry calcium silicate hydrates or silica of high specific surface with respect to the weight of the dry additive comprising anionic hydrophilic functional groups.

14. The method as claimed in claim 12 or 13, characterized in that the amount of calcium silicate hydrates or of silica of high specific surface introduced into the hydraulic inorganic binder composition to which has been added an additive comprising anionic hydrophilic functional groups is approximately 50% by weight of dry calcium silicate hydrates or silica of high specific surface with respect to the weight of the dry additive comprising anionic hydrophilic functional groups.

15. The method as claimed in any one of claims 1 to 14, characterized in that the additive comprising hydrophilic functional groups can be a film-forming polymer comprising anionic hydrophilic groups.

16. The method as claimed in claim 15, characterized in that the anionic hydrophilic groups are chosen from carboxyl, sulfonate, phosphate, phosphonate, sulfate or boronate groups.

17. The method as claimed in claim 16, characterized in that the anionic hydrophilic groups are carboxyl groups.

18. The method as claimed in any one of claims 15 to 17, characterized in that the film-forming polymer is based on at least one vinyl acetate, styrene/butadiene, styrene/acrylate, acrylate or styrene/butadiene/acrylate homopolymer or copolymer.

19. The method as claimed in any one of claims 15 to 18, characterized in that the film-forming polymer is based on at least one styrene/butadiene copolymer.

20. The method as claimed in any one of claims 15 to 19, characterized in that the film-forming polymer is prepared by an emulsion polymerization process.

21. The method as claimed in any one of claims 15 to 20, characterized in that the film-forming polymer is in the form of an aqueous dispersion.

22. The method as claimed in any one of claims 15 to 21, characterized in that the film-forming polymer is in the form of a powder, it being possible for said powder to be redispersed in water.

23. The method as claimed in any one of claims 15 to 22, characterized in that the film-forming polymer exhibits a surface comprising carboxyl groups and thus a degree of surface acidity.

24. The method as claimed in claim 23, characterized in that the degree of surface acidity is between 80 and 1200 microequivalents of -COOH functional group per gram of polymer.

25. The method as claimed in claim 24, characterized in that the degree of surface acidity is between 100 and 600 microequivalents of -COOH functional group per gram of polymer.

26. The method as claimed in any one of claims 15 to 25, characterized in that the hydraulic inorganic binders to which have been added a film-forming polymer comprising anionic hydrophilic groups comprise between 0.1% and 30% by weight of dry polymer with respect to the weight of the hydraulic binder.

27. The method as claimed in claim 26, characterized in that the hydraulic inorganic binders to which have been added a film-forming polymer comprising anionic hydrophilic groups comprise between 0.1% and 20% by weight of dry polymer with respect to the weight of the hydraulic binder.

28. The method as claimed in any one of claims 1 to 27, characterized in that the hydraulic binder is chosen from cements which can be of Portland, high-alumina or blast-furnace type, fly ash, calcined shales or calcium silicates formed by the reaction of pozzolans with lime.

29. A powder, capable of being obtained on conclusion of the drying of the mixture of stage 1 of the method as claimed in claim 3 or 4.

30. A hydraulic inorganic binder composition to which has been added an additive comprising hydrophilic functional groups capable of being obtained by the method as claimed in any one of claims 1 to 28.

31. The use of the hydraulic inorganic binder composition as claimed in claim 30 in tiling bonding cements, smoothing and finishing coatings, adhesives and coatings for insulating complexes, self-leveling floor coatings, repair mortars, leaktight coatings and grouts for the cementation of oil wells.